Scouts Lay Cornerstone for Model Airway

Legendary flyer Orville Wright was on hand to watch Washington's Boy Scouts lay the cornerstone of the nation's first airway on Bolling Field in February 1921. This initial ground marker was 20 feet long and composed of white-washed stones, forming the letters "DC-1," for District of Columbia, Stop Number 1. The event was the first attempt in the history of the United States to mark and chart the highways of the air.

General Mitchell was back at Bolling Field to participate in the ceremony. He explained to the crowd of more than 5,000 the importance of the Scouts' cooperation with the



government in aiding Army airmen who would be making flights to various parts of the country. Following the end of World War 1, General Mitchell fought for a government-supported system of airways because it was too expensive an endeavor for any one individual, company, or corporation. Also present were Glenn Curtiss and Glen Martin, two of aviation's earliest innovators, and Generals Pershing and Menoher.

The model airway served as a vital milestone in the development of both commercial and military aviation. The military had great hopes for the model airway; "rabbit's foot flying" was not the Army way.

The original route extended from Washington to Dayton, Ohio, through Moundsville, West Virginia. It

was later extended to Langley Field, Virginia, and Mitchel Field, New York, which were designated "operating terminals" with Bolling Field as "control center." Captain Streett, famed Alaskan flyer, was one of the first Model Airway Control Officers. The airway was completed enough for limited use by the summer of 1922 and, in 1926, the route was stretched further to San Diego and Los Angeles, via Dallas. Army and commercial groups used the model airway as a guide to develop six other transcontinental routes, reducing a journey across country from five days to only two.

Congress, however, would not loosen the purse strings for air routes, and the Army had no authority to use its current appropriations for airway construction. The model airway operated until Congress passed the Air Commerce Act of 1926, establishing a bureau in the Commerce Department to maintain civil airways and promote civil aviation.

Between the period of August 1922 and October 1926, Army pilots had flown over one million miles through the airway, completing 95 percent of all scheduled flights.

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Flying By the Light of the Moon and Stars

A daring young lieutenant from Bolling Field, Clayton Bissell, let the moon and the stars be his guide on a series of night flights to Langley Field, Virginia, starting June 16, 1922. By August, Lieutenant Bissell had accomplished the first night flight ever made from Washington to New York City.



According to the Air Service Newsletter, August 1922, "Judging from the experiences of Lieutenant Bissell, it would appear that flying at night, provided there are no clouds to obscure the visibility, is just as safe as during the day and, furthermore, the moon and the stars are not only great aids to visibility but serve as an unfailing guide in the matter of aiding the pilot in his direction of flight, something which cannot

always be said of the airplane compass." The article added that the lieutenant's flight deserved special merit because "We may gain from it the satisfying knowledge that no longer will it be possible, in the event of war, for enemy battleships to glide in near our shores during the dark of the moon and get away with it."

He conceived the idea of the night flights from Bolling to Langley Field for training purposes and to prove that the flights were feasible over routes that were "properly organized and sufficiently known by the navigating personnel." He requested authority to make the first flight during the full moon, in order to take advantage of the maximum amount of light, his second flight during the last quarter of the moon, and his third and fourth flights by the dark of the moon. The route from Bolling to Langley was selected so that it would always be possible to land in the water in case of emergency.

During one flight to Langley, Lieutenant Bissell noticed four U.S. battleships and three destroyers anchored just east of Yorktown, Virginia. "He states that it was very easy to see these ships due to the

lights on them," stated the Air Service Newsletter, "but that even had there been no lights on them at all the ships could have been easily picked up by the flow of the fire coming out of their funnels. This ability of air pilots to pick up seacraft at night may have an important bearing on the utilization of the Air Service in future military operations."

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Coast-to-Coast Flyers Celebrate at Bolling

By 1923, the pilots of the Air Service were anxious to challenge the untamed skies and smash aviation records. On May 2, 1923, Lieutenants Oakley T. Kelly and John A. Macready flew their converted T-2 Fokker monoplane from Roosevelt Field, New York, to Rockwell Field, California. This non-stop, transcontinental flight took the aviators nearly 27 hours, averaging 94 miles per hour for the 2,520-mile journey. Shortly after take-off, Macready made the first in-flight engine repair in Air Service history when he replaced a defective voltage regulator.

When they landed in California the next day, they had proven that troops and suppplies could be moved from coast to coast in one day. And, at the same time, the flyers had set a new record for the greatest distance made in a single cross-country flight. The two lieutenants flew back to the east coast, making easy hops from town to town on their return trip. They arrived at Bolling Field on June 2, where they were received enthusiastically and honored later at the White House by President Warren G. Harding.

The famous aviators might have made it to Bolling a little sooner had they not detoured through Lieutenant Kelly's hometown of Grove City, Pennsylvania, for a fly-by over his house and waving parents.

Throughout their route and during their stay on Bolling, "It has been one continuous party," said Lieutenant Kelly.

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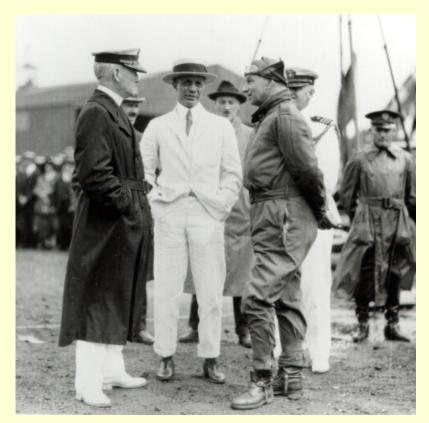
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Round-the-World Flyers

Defense Day 1924 at Bolling Field was truly a cause for celebrating America and its military accomplishments, especially in aviation, for they were many and they were great. But this particular year, the spectators had something to really roar about as they watched the newest and perhaps greatest celebrities of the sky perform for the at their field. These now-famous airmen were the acclaimed "world flyers" and they had stopped at Bolling to participate in the Defense Day activities. They would soon be on their way to Seattle, Washington, which would mark the end of their monumental flight around the world...the first such flight ever completed.

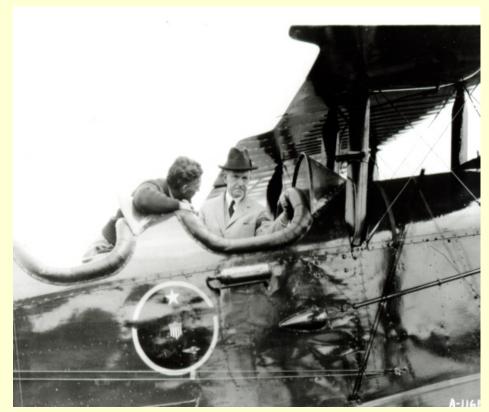
The quest to conquer the world by air had been attempted previously by five other countries, including France and Great Britain, but each had failed to reach its goal. But victory did not elude America's eight gallant airmen and their four unmistakably American airplanes proudly bearing the names Boston, Chicago, New Orleans, and Seattle, Douglas aircraft for this flight.

The incredible globe-girdling voyage began on April 6, 1924, when the four planes and eight crew members took off from Seattle. The adventurous airman were: Lieutenants Leigh Wade and H.H. Ogden, Boston; Capt. Lowell H. Smith and Lt. Leslie P. Amold, Chicago; Lieutenants Eric Nelson and Jack Harding, New Orleans; and Maj. Frederick



L. Martin and Sgt. Alva Harvey, Seattle. The flyers were bound for such exotic destinations as Alaska, Japan, China, India, Persia, Turkey and Iceland.

Unfortunately, two of the original four planes would never realize their goal of circumnavigating the globe. The Seattle hit a mountain peak in Alaska, leaving its crew stranded in the wilderness for 10 days, but luckily very much alive. Then, the Boston crew was forced to crash land in the North Atlantic, with the plane eventually being replaced by the Boston II and the crew resuming its venture in a matter of days.



Although the rain-soaked and weary crowd, including President Calvin C. Coolidge and his staff, that gathered at Bolling Field on September 9, 1924, would actually witness the return of only two of the aircraft, the enamored crowd would hail each of the original crew of world flyers with equal vigor and pride. The tireless crowd gazed skyward breathlessly and patiently for hours for the delayed arrival of their new heroes of the sky.

Finally, at a few minutes before 3 o'clock in the afternoon, the airships Chicago and Boston II

soared into view over the Washington skyline and landed at a jubilant Bolling Field. Up to a few hours before, these two planes had been accompanied by the New Orleans, and all three crews had anticipated making the entrance into Washington together. But a few miles short of Baltimore, in Halethorpe, Maryland, the New Orleans had been forced down in a grassy field because of mechanical problems. Fortunately, the repairs were minor and the craft was able to join its sister ships the very next day at Bolling.

All three planes remained at Bolling Field for the duration of Defense Day celebrations and were featured performers during the festivites. The morning of September 13, 1924, the gallant airmen embarked to finish the incredible worldwide journey they had begun almost six months before.



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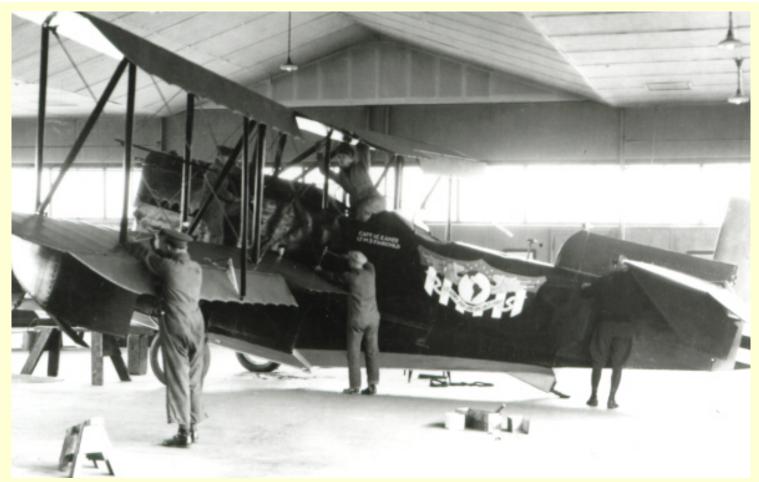
Pan American Flyers Earn First Distiguished Flying Cross

Thousands of spectators crowded the Bolling Field flightline on May 2, 1927, to catch a glimpse of the latest aviation pioneers, the "Pan American Flyers." The eight young men arrived at Bolling in their Loening OA-1A airplanes to be greeted by President and Mrs. Coolidge and receive the first Distinguished Flying Cross, a medal authorized by Congress just a few months before. Still wearing their rumpled coveralls, the weary airmen had just completed a spectacular 20,500-mile flight from San Antonio to Washington by way of Central and South America and the West Indies, delivering letters of good will from President Coolidge to the leaders of 23 countries.



Members of the Pan American flight were Major Herbert A. Dargue, flight leader, Captains Ira Eaker and Arthur B. McDaniel, and Lieutenants Ennis C. Whitehead, Charles Robinson, Muir S. Fairchild, Bernard S. Thompson and Leonard D. Weddington. (The only dark cloud looming over Bolling that day was the absence of Capt. Clinton F. Woolsey and Lt. John W. Benton, who lost their lives over Buenos Aires when their plane collided with Major Dargue's flagship aircraft.) The crew of the San Francisco, Captain Eaker and Lieutenant Fairchild (who would later serve as the first Commandant of Air University), won particular glory for piloting the only plane that completed ever scheduled stop on the 133-day journey.





can be little question that the Pan American Goodwill Flight accomplished its mission," Captain Eaker later commented. "At an estimated cost of \$100,000, it aroused the aviation interest of Latin American nationals and heads of state. Many of them had never seen an airplane before."

The aerial messengers of good will were accompanied to Bolling by a vast array of airplanes from Langley Field, including those carrying Assistant Secretary of War for Air Trubee Davison and Major General Mason M. Patrick, Chief of the Army Air Corps. According to the Air Service Newsletter, celebration activities on the flightline included aviation displays in both hangars and aerial demonstrations, featuring a "flying rodeo simulating broncos entering a ring and endeavoring to throw the riders."

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Hawaiian Aviators Hailed at Bolling



After a monumental flight in the Fokker C-2 Bird of Paradise from Oakland, California, to Hawaii on June 28, 1927, Lieutenants Lester J. Maitland and Albert F. Hegenberger landed at Bolling Field on July 21. Greeted by an enthusiastic crowd and dozens of top officials, the flyers received their citations for the Distinguished Flying Cross (which would be pinned on later when President Coolidge returned from the west coast). "The control of the Eastern Pacific hinges upon the control of Hawaii," said Major General Charles P. Summerall, Chief of Staff of the Army. "The flight has made the reinforcement of the islands from a point on the mainland a matter of assurance and a few hours."

The Washington Post summed up the events of the day at Bolling Field: "Like a giant droning bat, their plane came out of the west across the path of the descending sun. Down the field they came, the Army Band playing 'Stars and Stripes Forever'."

As the flyers disembarked, they were greeted by General Patrick and Brigadier General James Fechet, Assistant Chief of the Army Air Corps. On the way to the official pavilion, they were met by Assistant Secretary of War for Air Davison and General Summerall, then escorted to where the Cabinet members and other officials were waiting. Later in the program, General Pershing brought the entire assemblage to its feet when he entered the pavilion to shake the hands of the men who had just conquered the Pacific skies.

A thrilling aerial circus preceded the arrival of the lieutenants, with a variety of aviation demonstrations and parachute jumps by Bolling Field airmen. Piloting one of these planes was Lt. Elwood "Pete" Quesada, who would soon create front-page headlines of his own.

Headlines around the world hailed the young Charles A. Lindbergh after he made his spectacular non-stop trans-atlantic flight from New York to Paris on May 20, 1927. While VIPs fawned over him and adoring fans fought for a mere glimpse, Bolling personnel would come to know the colonel as a frequent guest at their field and welcome him as one of their own.

Following his flight over the Atlantic, the pilot and his beloved plane sailed to Washington aboard the Navy's Memphis, where the Spirit was sent to Boiling Field to be reassembled. Lindbergh went on to New York for his ticker tape parade and dozens of parties, but anxiously awaited the moment when weather conditions would allow him to personally retrieve his plane.



Much to the dismay of thousands of sleeping Washingtonians, only the flightline crews at Bolling were able to see Lindbergh the morning he arrived, June 16. for it was only 3:45a.m. Still in evening dress under his flight gear, he had abruptly left a benefit performance at New York's Roxy Theater upon receiving word of clearing weather conditions on the route to D.C. He was accompanied on the flight to

Bolling by Captain St. Clair Streett in the only two Air Service planes available that were equipped with navigation lights. The engine of the Spirit of St. Louis was warmed up and primed for take-off when Lindbergh landed.

"Lucky Lindy" and the Spirit returned to Bolling on Decenber 7, 1927, in preparation for his Goodwill Flight to Mexico. Unfortunately, his plane developed engine trouble and a specialist was quickly summoned from New York to assist the field's mechanics in the heated engineering hangar.

The aviator, meanwhile, took up residence with Major Harey S. Burwell, Bolling Field Commander. Among Colonel Lindbergh's many activities that week in Washington, one in particular involved a long day on the field with members of Congress, their wives and friends. In two Fokker transport planes, he personally treated more than 1,000 of these distinguished passengers to sightseeing tours over the city. The motors of these two planes were kept running continuously; while one machine was up in the air, the other was loaded up with more VIPs ready for Colonel Lindbergh to take the controls. Even though rain the day before his take-off had left Bolling Field soggy, the weather did nothing to dampen the colonel's spirits. According to the Washington Post, he actually managed to enjoy the rain-soaked conditions during one inspection of the field with Major Burwell and aviation designer Grover Loening.

Wading through the puddles of water in his heavy rubber boots was great fun for Colonel Lindbergh, but not for the other gentlemen. Each time the colonel came to a deep puddle, he would skim his heavy boots over its surface and shower the two men.

"The major and Loening employed some fancy footwork, but could not escape the effects of the pranks of their honored guest," reported the Post. "Once, 'Lindy' found a nice, big rock. He picked it up and, winding up like a big league baseball player, heaved it into a nice, big puddle of water. He seemed much amused at the funny motions the major and Loening made in an effort to avoid the accompanying spray."

By December 13, the time had come for the flyer to make yet another historic flight. "Rains that fell before my day of departure left numerous shallow pools half hidden by the grass," Colonel Lindbergh wrote in his Autobiogaphy of Values. "Those pools, pushing against tires and splashing against wings, fuselage and tail, would lengthen my take-off run considerably. The field's length was not great. Even though my plane carried a lighter fuel load than for its Paris flight, I wondered whether the elements of runway, weight and power would let me climb fast enough...The morning of December 13, I walked back and forth over the section of Bolling that the wind decided I must use, kicking my heels into sod to test its firmness, hunting for a path between most of the pools, deciding on the last point at which I would either cut the throttle or commit myself to take off."



After final inspection of his plane, Colonel Lindbergh thanked Major Burwell for his "100 percent cooperation," then left a message of gratitude for Bolling mechanic SSgt. Roy Hooe and his crew for their top-quality care of the Spirit of St. Louis.

The colonel then signaled for removal of the wheel blocks. Several of the field officers braced themselves against the struts of the Spirit of St. Louis and pushed. Wings wobbling, the plane lumbered along the field, past the white flag markers personally set by the colonel to indicate the point at which take-off would become dangerously close to impossible. The crowd watched anxiously as the plane lifted and dropped, then lifted and dropped again amidst cries of "He'll never make it!"

Undaunted, Colonel Lindbergh managed the plane skillfully, and at 12:29 p.m. lifted off the ground just seconds before reaching the end of the runway and soared off over the Potomac. Major Burwell, whose tense anxiety was greater than that of any other, said, "My God, that boy has the stuff!"

Throughout the Mexico tour as well as his previous stops, Colonel Lindbergh was in constant apprehension of the Spirit being torn to pieces by frenzied crowds, or someone being injured by the propeller. He flew to Washington for the last time in the Spiit of St. Louis, landing at Bolling Field on April 30, 1928, where he allowed the crew to disassemble it.

Even though it had been an incredible year

and two days with his Spirit, the colonel was not willing to risk the progress he had made in promoting the positive image of aviation. It was now time to pass on the legendary plane to the Smithsonian Museum for future generations of aviation enthusiasts to admire.

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The Bremen Episode Inspires Notion of Air Refueling

In the spring of 1928, Bolling Field pilots answered a desperate cry for help from a crew of German and Irish aviators stranded in the icy tundra of an island in the North Atlantic. The crew and its German low-wing plane, the Bremen, had just completed the first successful east-to-west crossing of the Atlantic, but had flown 1,000 miles off course and were stranded on Greenly Island just off the coast of Labrador.



Secretary of War Davison received the plea for assistance from the Junkers Company, the Bremen's manufacturer. The company believed that its top pilot, Frederick Melcheor, could get the Bremen into the air if he could just get to Greenly Island. Davison promptly summoned Captain Eaker of Bolling Field to meet with the company representative. After checking a map of the area, the captain decided that attempting a landing would be too hazardous because of icy conditions and the only way for Melcheor to reach the aircraft would be to parachute down to it from the Army plane. After Major General Fechet, by then Chief of the Air Corps, was advised of the planned rescue attempt, he decided to

personally accompany the airmen on this daredevil mission.

The flight crew consisted of Captain Eaker and Melcheor in one Loening amphibian airplane with Lieutenant Quesada of Bolling and General Fechet in another. They made it without incident to St. John, New Brunswick, but encountered foul weather over the Bay of Fundy and were forced down by a gathering storm. Quesada and the Chief of the Air Corps, their plane stuck in rocks and mud, were forced to dig their way out, but eventually made it to their next refueling stop at Pictou, Nova Scotia, arriving with almost no fuel left.

There was no sign at Pictou of Eaker and Melcheor, though they had managed to escape the treacherous bay first. Melcheor soon arrived on foot to report to the other crew members that Eaker had landed, "back in the hills," not far away but on a slope too steep to permit a normal take-off. The following day, Eaker arrived after having created an earthen mound to essentially "catapult" his plane into the air from the side of the slope.

A few days later, the planes were over Greenly Island, which was indeed packed by ice. The crew of